

Notice of Allowability

Application No.

10/647,741

Examiner

Elias Desta

Applicant(s)

ENNIS ET AL.

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on April 11, 2005.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☒ The drawings filed on 11 April 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Detailed Action

Amendment/Remark

1. The Examiner accepts the amendment to the drawing filed on April 11, 2005.

Allowance

2. Claims 1-6 are allowed. The following is an examiner's statement of reasons for allowance:

In reference to claim 1: *Kelley, Jr.* (U.S. Patent 4,143,315) teaches a method for detecting voltage disturbances in an alternating-current power system. (See *Kelley, Jr.* Fig. 1, and column 6, lines 25-67). The method includes:

- Inputting a signal representative of a voltage waveform applied to three channels where one of the channel having a square function and the other two channels having a zero cross detector (see *Kelley, Jr.*, Fig. 1);
- Initializing integration of the square function and the two delayed channel inputs and then determine the difference function to establish the half power function of the disturbance (see *Kelley, Jr.* Fig. 5); and
- Establishes a disturbance points as noted in Fig. 6

However, the method used in the claimed invention is fundamentally different from *Kelley, Jr.* The instant application first detects a disturbance signal when a deviation of the voltage waveform of the alternating current power system

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from the reference waveform exceeds a predetermined voltage threshold. Once the method establishes the deviation, then integration of the difference between the voltage waveform of the alternating current power system and the reference waveform is carried out whenever the deviation of the detecting step exceeds the predetermined threshold. Then, the result of the integration step is compared to a predetermined threshold value in order to establish a particular voltage disturbance if the result exceeds a given predetermined threshold value.

Porter (U.S. Patent 5,943,246) teaches voltage detection of utility services disturbances. The method samples instantaneous values, squares the voltage values (i.e., eliminate or rectify the negative portion of the signal) runs a sum, and compares the sum with under and over voltage threshold values in order to generate a disturbance detection signal (see Porter, Fig. 4).

The remaining claims 2-6 are dependent upon claim 1 and contain further limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214. The examiner can normally be reached on M-Thu (8:30-7:00).

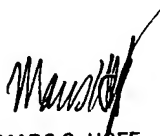
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)-272-1750.

Elias Desta
Examiner
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-ed

May 12, 2005


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800